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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,551	11/20/2003	Darryl P. Klein	W-9652-01	3546

7590 10/17/2007  
Robert A. Maggio, Esq.  
Advanced Refining Technologies LLC  
7500 Grace Drive  
Columbia, MD 21044

EXAMINER
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WOOD, ELIZABETH D

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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10/17/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/719,551	Applicant(s) KLEIN, DARRYL P.	
	Examiner Elizabeth D. Wood	Art Unit 1793	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/3/07</u> . | 6) <input type="checkbox"/> Other: _____  |

***Specification***

The examiner has not checked the specification to the extent necessary to determine the presence of all possible minor errors (grammatical, typographical and idiomatic). Cooperation of the applicant(s) is requested in correcting any errors of which applicant(s) may become aware of in the specification, in the claims and in any future amendment(s) that applicant(s) may file.

Applicant(s) is also requested to complete the status of any copending applications referred to in the specification by their Attorney Docket Number or Application Serial Number, **if any**.

The status of the parent application(s) and/or any other application(s) cross-referenced to this application, **if any**, should be updated in a timely manner.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24-52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection. The specification as originally filed does not provide

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support for the limitation that the phosphorus component is present in an amount insufficient to solubilize the Group VIII metal.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 24-52 remain rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,500,424 to Simpson for the reasons set forth in the previous office action.

***Response to Arguments***

Applicant's arguments filed August 3, 2007 have been fully considered but they are not persuasive.

Applicant states that they take exception to the characterization of a single characteristic as being the main difference between their invention and the prior art, and that they have repeatedly emphasized that there are several differences in the composition and method of preparation. The examiner considers that any such differences are not present **in the claims** and therefore are not relevant to an analysis of the obviousness of the claimed subject matter.

Applicant states that the examiner should not be comparing the language of the claims and the Simpson reference, but should be considering the "effect" of such difference. The applicant is directed to the language present in most office actions and reproduced below. Note the highlighted inquiry number 2.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. **Ascertaining the differences between the prior art and the claims at issue.**
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Next applicant appears to consider that significant catalyst improvements have been recorded and reported and should be considered. In the first place, the instant claims are directed to a composition ***used to make a catalyst***, not to the final composition. Accordingly, applicant would need to demonstrate a specific nexus between these preliminary components and the final composition and such would need to be present in the instant claims to demonstrate the "significant effects" of the resulting catalytic material. Finally, the showing would have to be precisely commensurate with the claims under examination. At this point, the claims recite only a support material, two metals and phosphorus, all known components in this art for this type of catalyst.

Next, applicant would appear to be providing the Lakhanpal et al. article as evidence that the claimed technology is being used and has "significantly improved properties". However, the article in no way demonstrates what prior art these improvements might be over. Furthermore, there is no specific evidence on this record that the composition being discussed in the article is the same

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material under examination in the instant application. The article does not discuss any composition used to make a catalyst composition; it discusses the importance of many limitations on the pore size distribution and metals distribution and dispersion of the final catalyst composition that are not even mentioned in the instant claims. Accordingly, the examiner fails to appreciate any evidence of "improved performance" as asserted by applicant's arguments. Even assuming arguendo that such improvements exist, the instant claim language is in no way commensurate with the presented arguments.

With respect to the continued arguments regarding the solubility of the carbonates, the examiner continues to consider that both Simpson and applicant have a carbonate Group VIII component as a part of the composition used to form the catalyst. Accordingly, both applicant and Simpson would appear to be using the SAME material, irrespective of the manner by which it is characterized. The applicant continues to assert that this limitation is critical and responsible for the improved performance of the catalyst. However, as discussed above, the examiner has not been presented with any evidence of "improved performance"; that is a specific showing against the Simpson composition (which uses the same carbonate, in any event). Nor has any evidence been provided that the solubility of a specific material is directly responsible for any alleged difference in performance. Argument does not constitute evidence. With respect to the carrier and the arguments with respect thereto, it is pointed out that agglomerating methods are known to result in macroporosity, and the manner of achieving such are also known and mentioned, by Simpson. Simpson employs

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pelleting and extruding, and both of these would result in agglomeration of the material. As with the other arguments presented, there is nothing in the instant claims that would appear to provide any distinction over known prior art materials. Furthermore, the characteristics of the final product have no bearing on the claimed material, which is used for making a catalyst.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

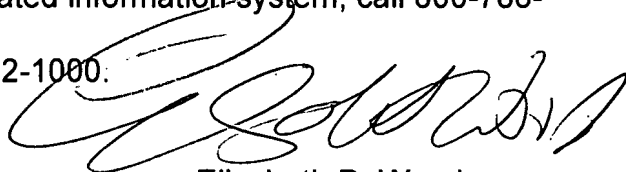
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth D. Wood whose telephone number is 571-272-1377. The examiner can normally be reached on M-F, 5:30-2:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Elizabeth D. Wood  
Primary Examiner  
Art Unit 1793

EDW